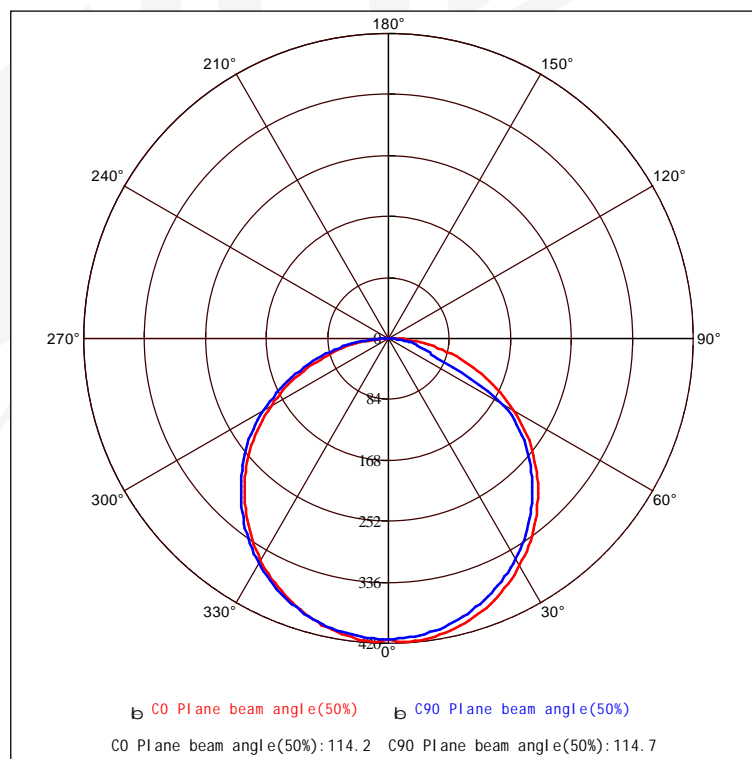


### Goniophotometer Test Report

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm						
Lamp Name: LED DOWN LIGHT		Lamp Type:		Weight(kg):		
Lamp ID: LPDL-20EMS01-Y		Lamp Spec:		Shape Size:		
Manufactory: LIPER		Sur(m <sup>2</sup> ):		Protect Angle(Deg):		
Light Source Data			Photometric Data			
Model	LPDL-20EMS01-Y		Peak Value(cd)	561.8	Efficiency(lm/w)	90.5
Nominal P(w)	1.0		Position	0.0, 2.0	UP(C0-C180)	0.0
Rated Volt(v)	220.0		Total Flux(lm)	1795.52	Down(C0-C180)	51.3
Rated Flux(lm)	1.0		Up Flux Rate(%)	0.0	UP(C180-C360)	0.0
Illuminant QTY	1		Dw Flux Rate(%)	100.0	Down(C180-C360)	48.7

### Planar Intensity Distribution Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

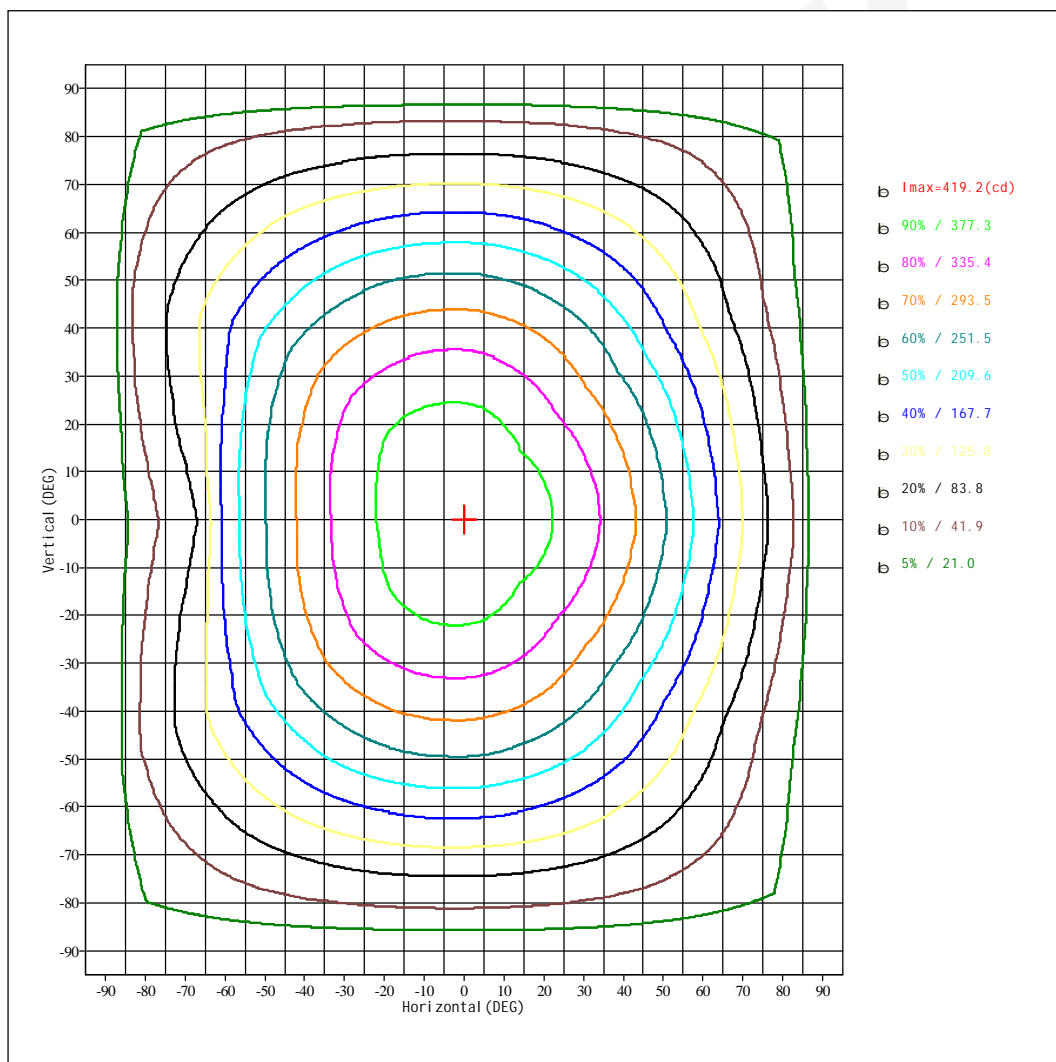
Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Planar IsoCandela Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 30

Tester: zxg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

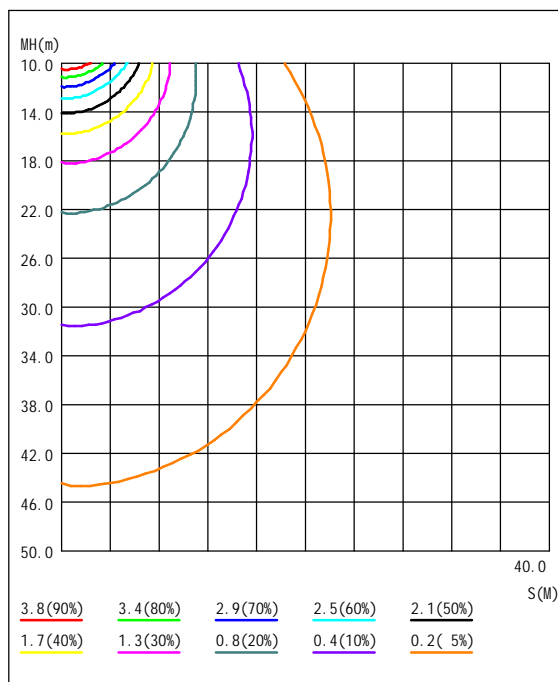
Humi di ty(%): 60

Date: 2023-11-14

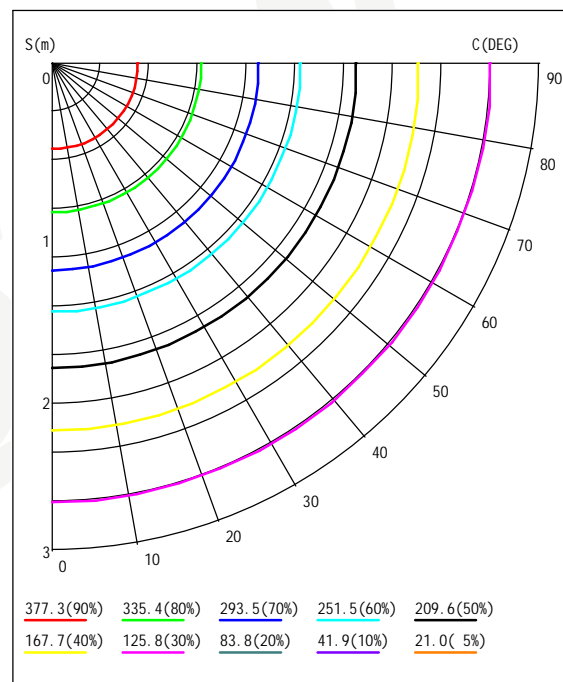
Remark:

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Spacial ISOLUX Curve



Planar ISOLUX Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Luminance Limit Curve

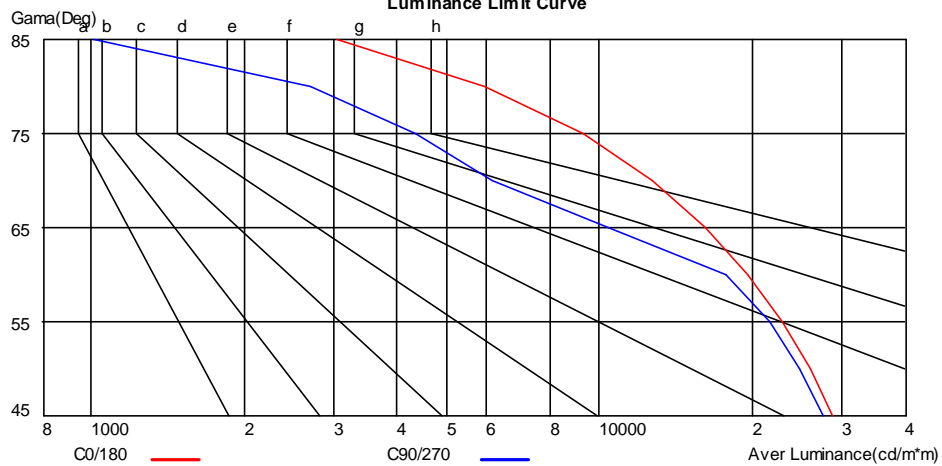
Aver Luminance(cd/m^2)

Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	28907.3	26087.6	23030.5	19606.6	16212.1	12709.2	9310.7	5957.2	3038.1
C90	27688.1	24895.5	21660.0	17729.1	10411.9	6178.6	4362.2	2707.2	1013.7

Glare

Glare	Class	Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

Luminance Limit Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 30

Tester: zyg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

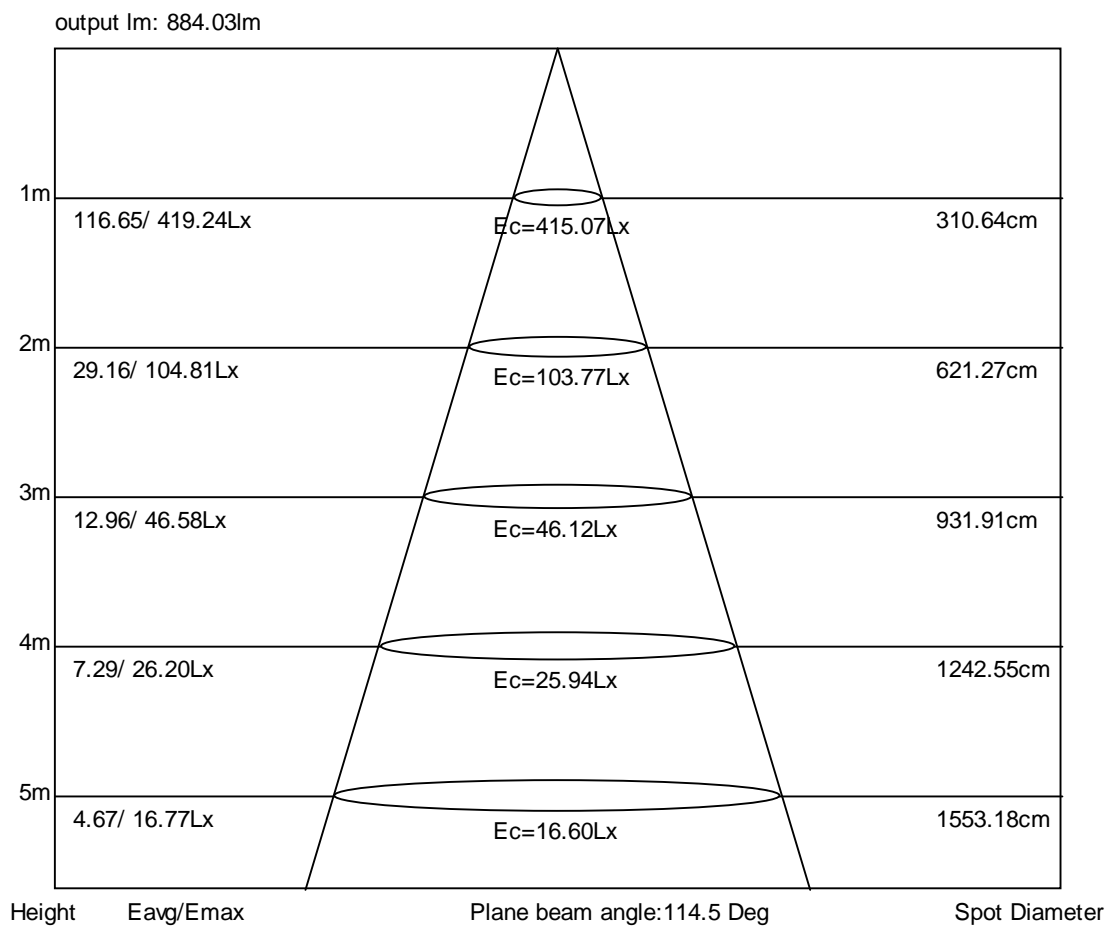
Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	Protect Angle(Deg):

Average Illumination



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 30

Tester: zxg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

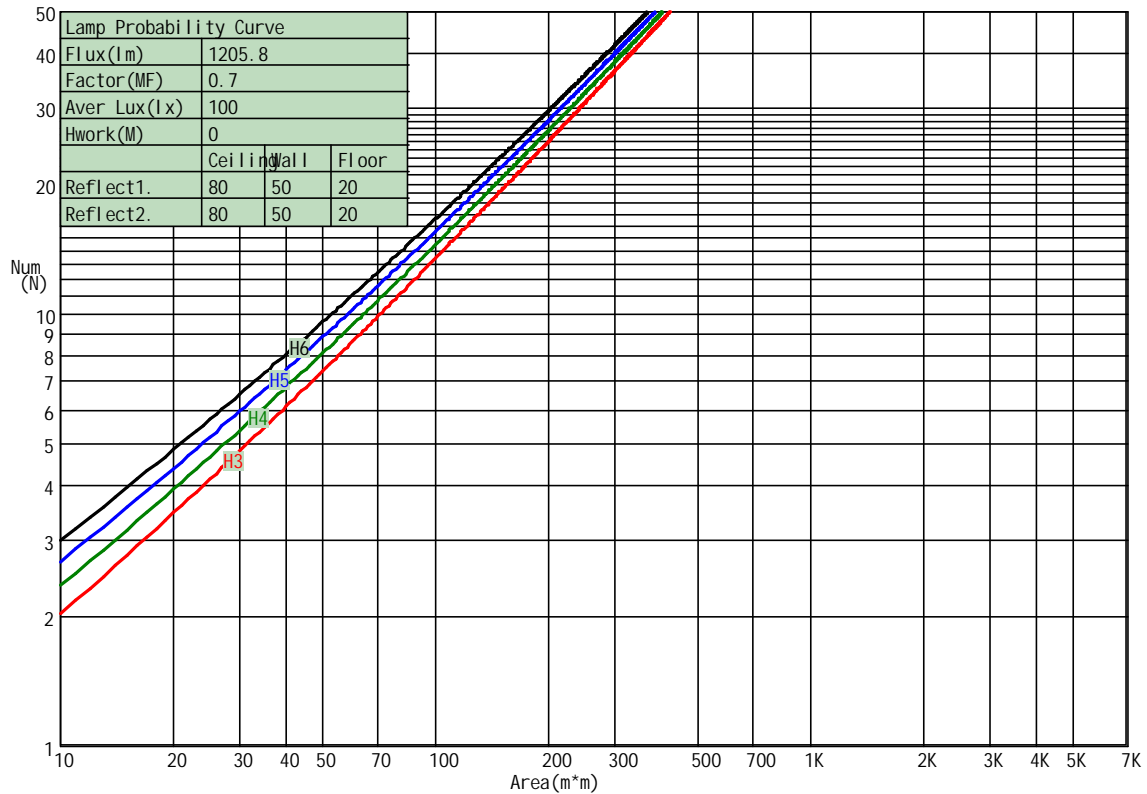
Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	Protect Angle(Deg):

Lamp Probability Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

UF Table

Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5
Wall	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3
Floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.60	53	38	29	51	37	29	48	36	28
0.80	57	41	30	55	40	30	51	38	29
1.00	61	44	32	58	42	31	53	40	30
1.25	63	46	33	61	44	32	55	41	30
1.50	65	47	33	62	45	32	56	42	31
2.00	68	49	34	64	47	33	58	43	31
2.50	70	50	34	66	48	33	58	43	30
3.00	71	51	34	66	48	33	58	43	30
4.00	72	52	35	67	49	33	59	44	30
5.00	73	53	35	68	50	33	59	44	30

CoEfficients Utilization

Ceiling(%)		0			0			0			0			0	
Wall (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02
1	1.04	0.99	0.95	1.01	0.97	0.94	0.97	0.94	0.91	0.93	0.9	0.88	0.9	0.87	0.85
2	0.9	0.83	0.77	0.88	0.82	0.76	0.85	0.79	0.75	0.81	0.77	0.73	0.78	0.75	0.71
3	0.79	0.71	0.64	0.77	0.7	0.64	0.74	0.68	0.62	0.72	0.66	0.61	0.69	0.64	0.6
4	0.7	0.61	0.54	0.69	0.6	0.54	0.66	0.59	0.53	0.64	0.57	0.52	0.62	0.56	0.52
5	0.62	0.53	0.47	0.61	0.53	0.46	0.59	0.52	0.46	0.57	0.5	0.45	0.55	0.49	0.45
6	0.56	0.47	0.41	0.55	0.47	0.4	0.53	0.46	0.4	0.52	0.45	0.4	0.5	0.44	0.39
7	0.51	0.42	0.36	0.5	0.42	0.36	0.48	0.41	0.35	0.47	0.4	0.35	0.46	0.4	0.35
8	0.46	0.38	0.32	0.46	0.37	0.32	0.44	0.37	0.32	0.43	0.36	0.31	0.42	0.36	0.31
9	0.43	0.34	0.29	0.42	0.34	0.29	0.41	0.33	0.28	0.4	0.33	0.28	0.39	0.33	0.28
10	0.39	0.31	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.3	0.26	0.36	0.3	0.26

Gama Angle Range: -90 - 90(Deg)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 30

Humi di ty(%): 60

Tester: zxcg

Date: 2023-11-14

Distance(m): 7.0

Remark:

Test System: ZWL Goni ophotometer System V3.0

Measured Para U: 216.9V I: 156.0mA P: 19.84W PF: 0.576 Test LM: 1795.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Wall Exi tance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.31	0.18	0.06	0.31	0.18	0.06	0.29	0.17	0.05	0.28	0.16	0.05	0.27	0.16	0.05
2	0.29	0.16	0.05	0.29	0.16	0.05	0.28	0.15	0.05	0.27	0.15	0.05	0.26	0.14	0.05
3	0.27	0.14	0.04	0.27	0.14	0.04	0.26	0.14	0.04	0.25	0.14	0.04	0.24	0.13	0.04
4	0.25	0.13	0.04	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.12	0.04	0.22	0.12	0.04
5	0.23	0.12	0.03	0.23	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03	0.2	0.11	0.03
6	0.21	0.11	0.03	0.21	0.11	0.03	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03
7	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.18	0.09	0.03	0.18	0.09	0.03
8	0.19	0.09	0.03	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.17	0.09	0.02
9	0.17	0.08	0.02	0.17	0.08	0.02	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02
10	0.16	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.07	0.02

Ceiling Cavi ty Exi tance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0.19	0.19	0.19	0.16	0.16	0.16	0.11	0.11	0.11	0.06	0.06	0.06	0.02	0.02	0.02
1	0.18	0.16	0.13	0.15	0.13	0.12	0.11	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.01
2	0.17	0.13	0.1	0.15	0.11	0.08	0.1	0.08	0.06	0.06	0.05	0.03	0.02	0.01	0.01
3	0.16	0.11	0.07	0.14	0.1	0.06	0.1	0.07	0.04	0.06	0.04	0.03	0.02	0.01	0.01
4	0.16	0.1	0.06	0.13	0.09	0.05	0.09	0.06	0.04	0.05	0.04	0.02	0.02	0.01	0.01
5	0.15	0.09	0.05	0.13	0.08	0.04	0.09	0.05	0.03	0.05	0.03	0.02	0.02	0.01	0.01
6	0.14	0.08	0.04	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
7	0.14	0.08	0.03	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
8	0.13	0.07	0.03	0.11	0.06	0.02	0.08	0.04	0.02	0.04	0.03	0.01	0.01	0.01	0
9	0.12	0.06	0.03	0.11	0.06	0.02	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.12	0.06	0.02	0.1	0.05	0.02	0.07	0.04	0.01	0.04	0.02	0.01	0.01	0.01	0

Gama Angle Range: -90 - 90(Deg)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 30

Humi di ty(%): 60

Tester: zyg

Date: 2023-11-14

Distance(m): 7.0

Remark:

Test System: ZWL Goni ophotometer System V3.0





